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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/881,609  
Filing Date: June 14, 2001  
Appellant(s): PEDLOW, LEO MARK

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Steven M. Freeland  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 09/02/08 appealing from the Office action mailed 08/22/06.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

Appellant's brief presents arguments relating to the objections of claims 2-4 (Issue 2). This issue relates to petitionable subject matter under 37 CFR 1.181 and not to appealable subject matter. See MPEP § 1002 and § 1201.

#### **(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

#### **(8) Evidence Relied Upon**

5,790,935	Payton	08-1998
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#### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:  
Claims 1-12 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Payton (5,790,935).

As to claim 1, Payton discloses a video on demand system (Fig. 2; column 4, lines 8-44), comprising:

a transmission channel (over digital transport system, 26; Fig. 2; column 4, lines 45-64);

a plurality of receivers coupled to the transmission channel (local servers, 28 for each subscriber; Fig. 2; column 4, lines 45-54), a VOD client at each receiver capable of subscribing to one or more VOD sessions over a transport stream (column 6, lines 20-36 and column 7, lines 13-35);

a headend (24) coupled to the transmission channel (Fig. 2), said headend including a video server that can transmit one or more VOD session to one or more receivers (column 4, line 55-column 5, line 5 and column 7, lines 13-35), and a control server coupled to the video server (scheduling processor; 46; Fig. 2), the control server to dynamically allocate and terminate VOD sessions over the transport stream as VOD clients are added and terminated (transmitting VOD movies as they are requested by the subscribers; column 7, lines 12-35 and column 5, lines 31-45), and, if necessary, to cause the video server to transmit one or more dummy sessions over the transport stream (transmitting content which has not been requested, but is recommended for some subscribers; column 5, lines 6-31 and column 7, lines 36-47) to maintain a predetermined minimum bandwidth of content over the transport stream (column 7, lines 36-60).

As to claim 2, Payton discloses wherein the control server will prevent each receiver from decoding the dummy sessions (wherein the stored content is encrypted to prevent unauthorized access; column 4, lines 64-66).

As to claim 3, Payton discloses wherein the control server will, If necessary, transmit one or more dummy sessions over the transport stream to maintain a minimum bandwidth of content over the transport stream (column 5, lines 6-31 and column 7, lines 36-60) to ensure that each receiver can synchronize to a subscribed VOD session (ensuring that every subscriber can receive, and thus synchronize, with their MPGE

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movie by ensuring that recommended ones are transmitted in advance; column 3, lines 34-42 and column 4, lines 59-64).

As to claim 4, Payton discloses wherein the control server is configured to determine whether the bandwidth of content over the transport stream is below a predetermined threshold (wherein it is determined that the used bandwidth is low enough to allow the transport of additional VOD content; column 7, lines 36-47) and to cause the video server to transmit one or more dummy sessions, as necessary, to maintain the bandwidth of content at the predetermined threshold (wherein the utilized bandwidth level falls low enough to allow the transport of additional content, the available content is then utilized to transport a recommended movie; column 7, lines 36-60 and column 5, lines 22-31).

As to claim 5, Payton discloses wherein each receiver includes a demodulator (inherently present to allow the set top box to receive the broadcast cable and satellite signals, which are modulated onto carrier signals; Fig. 2; column 4, lines 23-34), decoder (60, converting the MPEG video for display; column 6, lines 11-19 and column 4, lines 59-64) and an MPEG frame synchronizer (inherently present, as this is required for the decoder to synchronize with the MPEG stream and properly identify the start of the MPEG packets, through a sliding checksum; column 6, lines 11-19 and column 4, lines 59-64).

As to claim 6, Payton discloses wherein said headend includes a transmitter (Fig. 2; inherently present to transmit the content) having an MPEG frame synchronizer (inherently present, as this is required for the encoder to provide a stable stream of video to the encoder; column 6, lines 11-19 and column 4, lines 59-64), encoder (inherently present to have encoded the MPEG video; column 4, lines 59-64) and modulator (inherently present to allow the system to distribute the television signals; column 5, lines 55-67).

As to claim 7, Payton discloses wherein the transport stream is over a radio frequency channel (Fig. 2; satellite broadcast).

As to claim 8, Payton discloses wherein the video server can transmit one or more VOD sessions over one or more RF channels each associated with a transport stream (Fig. 2; broadcast satellite or cable channels; column 4, lines 7-22 and column 8, lines 11-15) and wherein said control server, if necessary, to cause the video server to transmit one or more dummy sessions over each transport stream, as necessary, to maintain a predetermined minimum bandwidth of content, over each of the one or more transport streams (transmitting content which has not been requested, but is recommended for some subscribers; column 5, lines 6-31 and column 7, lines 36-47).

As to claim 9, Payton discloses wherein the control server receives a request for a new VOD session from a VOD client (column 7, lines 12-35 and column 5, lines 31-

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45), the control server terminates one or more of the one or more dummy sessions (wherein the refresh queue item is transmitted and removed from the queue; column 7, lines 36-60 and Fig. 3c), and causes transmission of the new VOD session over the transport stream (wherein the system will then send the next on-demand item when the bandwidth becomes available; column 7, lines 36-60 and Fig. 3c).

As to claim 10, Payton discloses a video on demand server (24, Fig. 2; column 4, lines 8-44), comprising: a server that receives request from one or more VOD clients for one or more VOD sessions (transmitting VOD movies as they are requested by the subscribers; column 7, lines 12-35 and column 5, lines 31-45), causes transmission of one or more VOD sessions over a transport stream to one or more VOD clients (transmitting VOD movies as they are requested by the subscribers; column 7, lines 12-35 and column 5, lines 31-45), determines whether the number of VOD sessions transmitted over the transport stream is below a minimum threshold (determining less VOD movies are being transmitted than is possible; column 7, lines 36-60), and causes transmission of one or more padding sessions over the transport stream if the number of VOD sessions transmitted over the transport stream is below the minimum threshold to maintain the number of VOD sessions at or above the minimum threshold (transmitting content which has not been requested, but is recommended for some subscribers, whenever it is detected that enough bandwidth for another movie is available; column 5, lines 6-31 and column 7, lines 36-47).



As to claim 11, Payton discloses wherein the video server causes transmission of VOD sessions over a plurality of RF channels each associated with a transport stream (Fig. 2; broadcast satellite or cable channels; column 4, lines 7-22 and column 8, lines 11-15), the server determines, for each transport stream whether the number of VOD sessions is below the minimum threshold (transmitting content which has not been requested, but is recommended for some subscribers, whenever it is detected that enough bandwidth for another movie is available; column 5, lines 6-31 and column 7, lines 36-47), and, for each transport stream, causes transmission of one or more padding sessions if the number of VOD sessions transmitted over the respective transport stream is below the minimum threshold to maintain the number of VOD sessions at or above the minimum threshold (transmitting content which has not been requested, but is recommended for some subscribers, whenever it is detected that enough bandwidth for another movie is available; column 5, lines 6-31 and column 7, lines 36-47).

As to claim 12, Payton discloses wherein the control server receives a request for a new VOD session from a VOD client (column 7, lines 12-35 and column 5, lines 31-45), the control server terminates one or more of the one or more padding sessions (wherein the refresh queue item is transmitted and removed from the queue; column 7, lines 36-60 and Fig. 3c), and causes transmission of the new VOD session (wherein the system will then send the next on-demand item when the bandwidth becomes available; column 7, lines 36-60 and Fig. 3c).

As to claim 20, Payton discloses a digital video system (Fig. 2; column 4, lines 8-44), comprising:

a transmission channel (over digital transport system, 26; Fig. 2; column 4, lines 45-64);

a plurality of receivers coupled to the transmission channel (local servers, 28 for each subscriber; Fig. 2; column 4, lines 45-54), a client at each receiver capable of subscribing to one or more VOD sessions over a transport stream (column 6, lines 20-36 and column 7, lines 13-35);

a headend (24) coupled to the transmission channel (Fig. 2), said headend including a video server that can transmit one or more video sessions to one or more receivers (column 4, line 55-column 5, line 5 and column 7, lines 13-35), and a control server coupled to the video server (scheduling processor; 46; Fig. 2), the control server to cause the video server to transmit one or more dummy sessions over the transport stream (transmitting content which has not been requested, but is recommended for some subscribers; column 5, lines 6-31 and column 7, lines 36-47) to maintain a predetermined minimum bandwidth of content over the transport stream (column 7, lines 36-60).

As to claim 21, Payton discloses wherein the control server is configured to determine whether the bandwidth of content over the transport stream is below a predetermined threshold (wherein it is determined that the used bandwidth is low

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enough to allow the transport of additional VOD content; column 7, lines 36-47) and to cause the video server to transmit one or more dummy sessions, as necessary, to maintain the bandwidth of content at the predetermined threshold (wherein the utilized bandwidth level falls low enough to allow the transport of additional content, the available content is then utilized to transport a recommended movie; column 7, lines 36-60 and column 5, lines 22-31).

As to claim 22, Payton discloses wherein the headend transmits digital video programming in accordance to one of a digital broadcast satellite system (Fig. 2; column 5, lines 55-67), digital cable system (column 5, lines 55-67) and video-on-demand system (column 4, lines 8-22).

#### **(10) Response to Argument**

a. On pages 10-14, appellant argues that Payton does not disclose “dummy sessions”, and specifically that non-requested content is not a “dummy session”.

In response, Payton discloses transmitting content in two distinct fashions. The first is comprised of VOD sessions consisting of movies specifically requested by viewers (column 7, lines 13-35). The second is comprised of transmitted content which has not been requested by subscribers, but may be desired in the future (column 5, lines 6-21). This content only transmitted when bandwidth is available and there are no pending subscriber requests (see Fig. 3c and column 7, lines 36-47). Thus, as the non-requested content of Payton is not

directed towards any specific user, and only transmitted to use extra bandwidth when user requests are not pending, it clearly reads upon the broad limitation of a “dummy session”.

While Appellant argues that the specification defines a “dummy session” is “dummy copies of purchased content”, “padding streams” and/or non-null content that “no client is assigned or authorized to access the content”, it is noted that none of these multiple distinct definitions are not contained within the claims.

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Furthermore, as indicated above, Payton discloses VOD sessions consisting of movies specifically requested by viewers (column 7, lines 13-35) and sessions which have *not* been requested by subscribers (column 5, lines 6-21). These streams which are not requested can clearly be read as “dummy copies of purchased content” as they are normal purchasable VOD movies which are transmitted even though they were not ordered.

Further, as these recommended movies are only added when no there are no current viewer requests (column 7, lines 36-46), they would clearly qualify as “padding streams” as they are added to use the rest of the available bandwidth (column 7, lines 36-46) which ensures the system is efficiently using the limited bandwidth that is available (column 4, lines 23-44).

b. On pages 10-12, appellant argues that Payton does not disclose transmitting the dummy sessions "to maintain a predetermined minimum bandwidth".

In response, Payton specifically discloses wherein the system will monitor the bandwidth and transmit the recommended content if it is detected that enough bandwidth is available for another item to be transmitted (column 7, lines 36-41) and if the on-demand queue is empty (signifying that there is no pending request for user content; column 5, lines 31-36 and column 7, lines 36-50). The recommended content is utilized to ensure that the bandwidth of content does not fall below the level that there would be bandwidth wasted. Thus, the "minimum bandwidth" of Payton is the level at which no more items may be transmitted.

More specifically, the system of Payton is designed to provide a VOD system even though the total bandwidth available is much less than what would be needed in a "true" on demand system (column 4, lines 23-44). Payton does this by filling in any extra available bandwidth during off peak hours with recommended (or dummy) content (column 4, lines 35-44 and column 7, lines 36-60).

This is achieved by monitoring the current available bandwidth (Fig. 3c, steps 86-90 and column 7, lines 36-47) and then inserting a recommended movie (dummy session) whenever the total used bandwidth falls below *a predetermined*

*threshold* (the threshold being the level at which another full movie could be transmitted; column 7, lines 36-41).

It should also be noted that both Payton and the current invention add more data to be sent out. While the current application adds data when usage is low, Payton's adding of data when ever possible is doing the same thing. That is, adding data to make sure that as much (a minimum level) data is sent.

c. Appellant argues that Payton's system is "reducing bandwidth usage during peak times by transmitting recommended items during off peak times" and that these recommended items are not sent to maintain minimum bandwidth usage but to reduce bandwidth usage.

In response, as indicated above, Payton discloses a system which will more efficiently use the bandwidth available (column 4, lines 23-44). This is achieved by transmitting recommended content whenever the current bandwidth usage drops low enough to allow one more video stream to be transmitted (column 4, lines 23-44 and column 7, lines 36-41).

The system is not simply attempting to reduce peak bandwidth usage, as appellant suggests, as Payton admits that the system would not have enough total bandwidth to service all of the requests (column 4, lines 23-44). In Payton's system, by providing recommended content whenever the used bandwidth drops low enough, it reduces the number of future requests for content (column 4, lines 23-44). Payton specifically discloses a system in which the recommended

content (dummy sessions) are transmitted to maintain a minimum bandwidth usage, as Payton indicates that this is the only way the system could successfully service all of the viewers requests. By ensuring that the total system bandwidth is always being used (column 7, lines 36-41), the system is able to satisfy more viewers (column 4, lines 23-44).

Thus, Payton clearly discloses that these recommended (dummy) items are sent to maintain a predetermined minimum bandwidth, as Payton will:

1. Monitor the bandwidth of content (column 7, lines 36-39),
2. Detect that the bandwidth of content has fallen below a predetermined level (column 7, lines 39-41),
3. Transmit “dummy sessions” to use the available bandwidth and push the total used bandwidth level back above the desired level (Fig. 3c; column 7, lines 41-47).

These steps, performed by Payton, clearly read upon the current claim limitations.

d. On pages 17-18, regarding claim 2, appellant argues that Payton does not disclose a system where each receiver is prevented from decoding the dummy sessions.

In response, Payton discloses wherein the content streams are encrypted so that the items cannot be accessed without *first* being paid for (column 4, lines 64-66). Thus, Payton explicitly discloses that all of the receivers are prevented

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from decoding the dummy sessions. While the receivers may later access the content after paying for it, this is not precluded from the claim language. There clearly exists a period of time where Payton's system reads upon the claim language, as all of the receivers are initially unable to decode the dummy sessions.

e. In response to appellant's arguments, in regards to claim 3, Payton specifically discloses wherein the recommended content is transmitted whenever bandwidth is available to reduce the load on the system (column 3, lines 34-42 and column 4, lines 9-44). Thus, the system ensures that each user can request and receive desired content (column 4, lines 23-44) even when the central server does not support enough capacity to provide content for each on-demand request (column 4, lines 23-44). Thus, the transmission of the recommended content ensures that the receivers are able to synchronize and display their desired content.

f. In response to appellant's arguments, in regards to claims 4-5, please see (a)-(c) above.

g. In response to appellant's arguments, in regards to claim 6, Payton discloses wherein the digital content is to be stored in MPEG form to *improve* storage and transport efficiency (column 4, lines 55-64). Thus, the digital content



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is encoded into MPEG, as the central server is improving the storage efficiency of the digital content by encoding it into MPEG.

h. In response to appellant's arguments, in regards to claims 7-8, see (a)-(c) above.

i. In response to appellant's arguments, in regards to claims 9, Payton clearly discloses where after receipt of a VOD request (added to the demand queue; column 7, lines 13-25) the system will terminate a dummy session (upon completion of the stream, thereby making the bandwidth available; column 7, lines 36-60), and then initiate transmission of the requested VOD content (column 7, lines 36-56).

j. In response to appellant's arguments, in regards to claims 10-12 and 20-22, see (a)-(c) above.

k. In response to appellant's arguments on page 25, regarding the claim objections (Issue 2), this issue relates to petitionable subject matter under 37 CFR 1.181 and not to appealable subject matter.

#### **(11) Related Proceeding(s) Appendix**

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No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/James Sheleheda/

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